


Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	Continuation of 09/345,712
		Filing Date	January 18, 2001
		First Named Inventor	Jack L. Arbiser
		Group Art Unit	
Examiner Name		Attorney Docket Number	EU 98055 CON
Sheet	1	of	5

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	US Patent Document		Name of Patentee or Applicant of Cited Document	Date of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
/		4,704,383		McNamara, et al.	11-03-1987
/		4,900,815		Tanaka, et al.	02-13-1990
/		4,925,833		McNamara, et al.	05-15-1990
/		4,935,411		McNamara, et al.	06-19-1990
/		4,975,422		Kanoh, et al.	12-04-1990
/		5,290,807		Folkman, et al.	03-01-1994
/		5,401,504		Das, et al.	03-28-1995
/		5,576,330		Buzzetti, et al.	11-19-1996
/		5,629,340		Kuwano, et al.	05-13-1997
/		5,639,725		O'Reilly, et al.	06-17-1997
/		5,654,312		Andrulis, Jr. et al.	08-05-1997
/		5,670,493		Cordi, et al.	09-23-1997
/		5,712,291		D'Amato	01-27-1998
/		5,733,876		O'Reilly, et al.	03-31-1998
/		5,861,415		Majeed et al.	01-19-1999
/		5,891,924		Aggarwal	04-06-1999
/		5,925,376		Heng	06-20-1999

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Office. ³	Number ⁴	Kind Code ⁵ (if known)		
/		WO	95/18606	A1	Research Development Foundation	07-13-1995
/		JP	10120558	A	Doctors Cosmetics YG	05-12-1998

Examine Signature		Date Considered	11/14/01
-------------------	---	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SENT TO: Assistant Commissioner for Patent, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	Continuation of 09/345,712
				Filing Date	January 18, 2001
				First Named Inventor	Jack L. Arbiser
				Group Art Unit	
				Examiner Name	
Sheet	2	of	5	Attorney Docket Number	EU 98055 CON

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
K		ARBISER, et al., "Curcumin is an <i>in vivo</i> inhibitor of angiogenesis," <i>Molecular Medicine</i> 4(6):376-383 (1998).	
K		ARBISER, et al., "Oncogenic H-ras stimulates tumor angiogenesis by two distinct pathways," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 94(3):861-6 (1997).	
K		BILLE, et al., "Subchronic oral toxicity of turmeric oleoresin in pigs," <i>Food Chem. Toxicol.</i> 23(11):967-73 (1985).	
K		CONNEY, et al., "Inhibitory effect of curcumin and some related dietary compounds on tumor promotion and arachidonic acid metabolism in mouse skin," <i>Adv. Enzyme Regul.</i> 31:385-96 (1991).	
K		ELAYAN, et al., "Long-term alteration in the central monoaminergic systems of the rat by 2,4,5-trihydroxyamphetamine but not by 2-hydroxy-4,5-methylenedioxymethamphetamine or 2-hydroxy-4,5-methylenedioxymethamphetamine," <i>Eur. J. Pharmacol.</i> 221(2-3):281-8 (1992).	
K		FOLKMAN, "Antiangiogenic gene therapy," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 95(16):9064-6 (1998).	
K		FOLKMAN, "Diagnostic and therapeutic applications of angiogenesis research," <i>C. R. Acad. Sci. III.</i> 316(9):914-18 (1993).	
K		FOLKMAN, et al., "Long-term culture of capillary endothelial cells," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 76(10):5217-21 (1979).	
K		GENETIC ENGINEERING NEWS, 18(17):1, 8, 34, 46 (1998).	
K		GOLUB, et al., "A non-antibacterial chemically-modified tetracycline inhibits mammalian collagenase activity," <i>J. Dent. Res.</i> 1987 Aug;66(8):1310-4.	

Examiner's Signature		Date Considered	11/14/01
----------------------	--	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	
				Continuation of 09/345,712	
				Filing Date	
				January 18, 2001	
				First Named Inventor	
				Jack L. Arbiser	
Group Art Unit					
Examiner Name					
Sheet	3	of	5	Attorney Docket Number	
				EU 98055 CON	

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
K		GOLUB, et al., "Further evidence that tetracyclines inhibit collagenase activity in human crevicular fluid and from other mammalian sources," <i>J. Periodontal Res.</i> 20(1):12-23 (1985).	
K		GOLUB, et al., "Minocycline reduces gingival collagenolytic activity during diabetes. Preliminary observations and a proposed new mechanism of action," <i>J. Periodontal Res.</i> 18(5):516-26 (1983).	
K		GOLUB, et al., "Tetracyclines inhibit tissue collagenase activity. A new mechanism in the treatment of periodontal disease," <i>Periodontal Res.</i> 19(6):651-5 (1984).	
K		HONG & LIPPMAN, "Cancer chemoprevention," <i>J. Natl. Cancer Inst. Monogr.</i> (17):49-53 (1995).	
K		HUANG, et al., "Effect of dietary curcumin and ascorbyl palmitate on azoxymethanol-induced colonic epithelial cell proliferation and focal areas of dysplasia," <i>Cancer Lett.</i> 64(2):117-21 (1992).	
K		HUANG, et al., "Effects of curcumin, demethoxycurcumin, bisdemethoxycurcumin and tetrahydrocurcumin on 12-O-tetradecanoylphorbol-13-acetate-induced tumor promotion," <i>Carcinogenesis</i> 16(10):2493-7 (1995).	
K		HUANG, et al., "Suppression of c-Jun/AP-1 activation by an inhibitor of tumor promotion in mouse fibroblast cells," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 88(12):5292-6 (1991).	
K		KELLOFF, et al., "Cancer Chemopreventive Agents: Drug Development Status II," <i>J. Cell. Biochem. Suppl.</i> 26:1-28 (1996)	
K		KENT, et al., "Requirement for protein kinase C activation in basic fibroblast growth factor-induced human endothelial cell proliferation," <i>Circ. Res.</i> 77(2):231-8 (1995).	
K		KENYON, et al., "A model of angiogenesis in the mouse cornea," <i>Invest. Ophthalmol. Vis. Sci.</i> 37(8):1625-32 (1996).	

Examiner's Signature		Date Considered	11/14/01
----------------------	--	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	Continuation of 09/345,712		
		Filing Date	January 18, 2001		
		First Named Inventor	Jack L. Arbiser		
		Group Art Unit			
		Examiner Name			
Sheet	4	of	5	Attorney Docket Number	EU 98055 CON

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		KILPATRICK, et al., "Towards an RNA-based therapy for Marfan syndrome," <i>Mol. Med. Today</i> 4(9):376-81 (1998).	
		KOHL, et al., "Inhibition of farnesyltransferase induces regression of mammary and salivary carcinomas in ras transgenic mice," <i>Nat. Med.</i> 1(8):792-7 (1995).	
		KORUTLA, et al., "Inhibition of ligand-induced activation of epidermal growth factor receptor tyrosine phosphorylation by curcumin," <i>Carcinogenesis</i> 16(8):1741-5 (1995).	
		LARCHER, et al., "Up-regulation of vascular endothelial growth factor/vascular permeability factor in mouse skin carcinogenesis correlates with malignant progression state and activated H-ras expression levels," <i>Cancer Res.</i> 56(23):5391-6 (1996).	
		LU, et al., "Effect of curcumin on 12-O-tetradecanoylphorbol-13-acetate- and ultraviolet B light-induced expression of c-Jun and c-Fos in JB6 cells and in mouse epidermis," <i>Carcinogenesis</i> 15(10):2363-70 (1994).	
		MARTELL & BOOTHE, "The 6-deoxytetracyclines. VII. Alkylated aminotetracyclines possessing unique antibacterial activity," <i>J. Med. Chem.</i> 10(1):44-6 (1967).	
		O'BRIEN, et al. "Two mechanisms of basic fibroblast growth factor-induced angiogenesis in bladder cancer," <i>Cancer Res.</i> 57(1):136-40 (1997).	
		PROCHASKA, et al., "Rapid detection of inducers of enzymes that protect against carcinogens," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 89(6):2394-8 (1992).	
		RAO, et al., "Anti-inflammatory activity of curcumin analogues," <i>Indian J. Med. Res.</i> 75:574-8 (1982).	
		RAO, et al., "Chemoprevention of colon carcinogenesis by dietary curcumin, a naturally occurring plant phenolic compound," <i>Cancer Res.</i> 55(2):259-66 (1995).	

Examiner's Signature	11/14/01	Date Considered	
-------------------------	----------	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	Continuation of 09/345,712		
		Filing Date	January 18, 2001		
		First Named Inventor	Jack L. Arbiser		
		Group Art Unit			
		Examiner Name			
Sheet	5	of	5	Attorney Docket Number	EU 98055 CON

OTHER ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner's Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
f		RAO, et al., "Inhibition by dietary curcumin of azoxymethane-induced ornithine decarboxylase, tyrosine protein kinase, arachidonic acid metabolism and aberrant crypt foci formation in the rat colon," <i>Carcinogenesis</i> 14(11):2219-25 (1993).	
f		SHING, et al., "Curcumin inhibits the proliferation and cell cycle progression of human umbilical vein endothelial cell," <i>Cancer Lett.</i> 107(1):109-15 (1996).	
f		SINGH, et al., "Activation of transcription factor NF-kappa B is suppressed by curcumin," <i>J. Biol. Chem.</i> 270(42):24995-5000 (1995).	
f		STONER, "Polyphenols as cancer chemopreventive agents," <i>J. Cell. Biochem. Suppl.</i> 22:169-80 (1995).	
f	X	THALLOOR, et al., "Inhibition of angiogenic differentiation of human umbilical vein endothelial cells by curcumin," <i>Cell Growth Differ.</i> 9:305-312 (1998).	
f		TORTORA, "Principles of Human Anatomy", 5 th ed., pp. 371-372, Harper & Row, N. Y. (1989).	
f		ZBINOVSKY, et al., <u>Analytical Profiles of Drug Substances</u> , Florey (ed.), pp. 323-339 (Academic Press, NY 1977)	

Examiner's Signature		Date Considered	11/14/01
----------------------	--	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you require to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.